HRT and menopausal status. 'Fatty' or 'almost fatty' breast cathegories for the 40's, 50's and 60's age groups were 45.3%, 65.1% and 76.9%, respectively (p<0.001). **Conclusion**: Numbers are still small for definitive conclusions, but accrual rates exceed expectation for an underserved community in Latin America. BI-RADS zero were found to shelter relevant conditions, emphasizing the need for an organized program for recall. All early diagnosed cases were potentially agressive, indicating the benefit of AMS to communities often presenting as stage III/IV disease. Cost-effectiveness is a major issue to evaluate the intervention in the 40 to 49y-o group.

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Tubular carcinoma: outcomes analysis of favorable breast cancer treated with breast conserving therapy.

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Purpose: To evaluate outcomes data for patients with tubular carcinoma treated with breast conserving therapy.
Methods: The features of 293 pathologically reviewed patients with a diagnosis of tubular carcinoma were compared with respect to bct, axillary management, sytemic therapy, and percentage of tubular formation. OS, DMFS, DFS, and Local-regional control were also compared. Kaplan Meier statistics were utilized.
Results: Median age at diagnosis was 55 (range 33-81years). Median follow-up was 95 months (range 3-284). 14 % had + lymph nodes. 20% had multifocal and or multicentric presentation after work-up. 5 and 10 year OS, LRC,DMFS, and DFS were as follows: 96%/93%; 98%/96%;99%/95%;97%/93%. For patients treated with BCT 5/10 year OS vs mastectomy was 98%/95% vs 98%/89% (p=.07). LRC was 99%/98% vs 98%/94% (p=.8). OS and LRC were not significantly different at 5 and 10 years for BCT patients not treated with xrt who had negative margins (93/93 vs 97/97; 99/96 vs 100/100). Similarly patients undergoing ALND had rates of OS and LRC that were not siginificantly different at 5 and 10 year interval (98/92 vs 92/92 and 99/96 vs 100/100 (p= .3 and .6 respectively)
Conclusions: This large retrospective analysis demonstrates equivalent efficacy in carefull selected patients undergoing BCT with a diagnosis of tubular carcinoma even when xrt is omitted. It is noted however that 20% of patients had mutifocal or multicentric presentation. In this study the axilla was effectively managed with and without ALND although 15% of patients had psotive nodal presentation. Consensus criteria tubular carcinoma (70% + tubules) yields excellent outcome when managed in the context of the multidisciplinary team. Individualized therapy is an appropriate standard to insure high quality of care.

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Decision-making process for early-stage breast cancer is surgeon driven.

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Background: Breast Conserving Surgery (BCS) has become the standard of care for early stage breast cancer and is considered as one of the quality indicators of a breast program practice. Several studies have reported that BCS is still under utilized, mostly, because of patient's choice. However, surgeons' decision-making process has not been emphasized. Based upon an overall baseline frequency of 55% of BCS in 2001, the Intermountain Health Care (IHC) oncology clinical program developed a quality of care initiative to increase the use of BCS for women with early stage breast cancer treated at IHC facilities. This initiative resulted in a significant increase in the frequency of BCS to 67% overall, 2 year after implementation of data feedback to surgeons. The objective of this study was to evaluate the difference in clinical factors that affected the use of BCS before and after implementation of data feedback.

Methods: We extracted cancer registry data of 3236 women with early-stage breast cancer who received BCS at IHC facilities between 1999-2004. We conducted a retrospective study. Multiple logistic regression was used to generate odds ratios (ORs) and 95% Confidence Intervals (CIs) to determine change in clinical factors associated with increase in the frequency of BCS after implementation of data feedback.
Results: Before the implementation of data feedback (years 1999-2001), the ORs were respectively: age (OR=0.98; 95% CI, 0.97-0.99), number of nodes positive (OR=0.68; 95% CI, 0.50-0.93), tumor size (OR=0.97; 95% CI, 0.96-0.98) and grade (OR=0.83; 95% CI, 0.73-0.96) and stage (OR=0.86; 95% CI, 0.69-1.08). After implementation of data feedback (years 2002-2004), the ORs were: age (OR=0.98; 95% CI, 0.97-0.99), number of node positive (OR=0.76; 95% CI, 0.53-1.09), tumor size (OR=0.99; 95% CI, 0.99-1.0) and grade (OR=0.85; 95% CI, 0.75-1.0) and stage (OR=0.53; 95% CI, 0.41-0.69).
Conclusions: Before implementation of data feedback the clinical factors that affected the surgeon's decision-making process for BCS were age, number of nodes positive, tumor size and grade. After implementation of data feedback, we found that the following clinical factors, number of nodes positive, tumor size and grade, were no longer influencing the surgeon's decision-making for BCS. However, an increase in patient age and stage decreased the chance of having a BCS. The data demonstrated that surgical decision-making process for early stage breast cancer is very much surgeon' driven and that any strategy to increase the frequency of BCS should also emphasize widespread education to surgeons.

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Adjuvant chemotherapy in stage II node positive male breast cancer.

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Background: Male breast cancer (MBC) is a rare disease, which accounts for an annual estimate of 0.2% of all cancers and 0.1% of all cancer deaths in men in the US, with approximately 1,690 new breast cancer cases and 460 breast cancer - specific deaths among men per year. We present the long-term follow-up of a prospective study of MBC with node positive disease treated with adjuvant chemotherapy.
Material and Methods: Between 1974 and 1988, men with Stage II node positive disease were entered on study MB82. Following mastectomy, patients were treated with 12 cycles of CMF therapy. The treatment protocol utilized intravenous cyclophosphamide 500mg/m^2, 5-fluorouracil 600mg/mg^2 and methotrexate 60mg/m^2 all given on day 1 and 8 of a 28-day cycle for one year. Three patients received tamoxifen therapy.
Results: Thirty one patients were enrolled on study with a median age of 61 yrs at diagnosis (38- 74yrs). Twenty-three patients (74%) had 1-3 positive axillary lymph nodes while 8 patients (26%) had 4 or more positive nodes. Estrogen receptor status was determined in 23 patients (74%); positive in 22 patients and negative in one patient. Progesterone receptor status was determined in 19 patients (61%); positive in 17 patients and negative in two patients. Median potential follow-up for all patients is 22.0 years with a median survival of 15.2 years. Twenty patients have died, one from a treatment-related complication (GI hemorrhage), six patients from recurrent breast cancer, three from other cancers (prostate, esophageal, and lung cancer), 2 from non-cancer related causes, and 8 unknown. Eleven patients remain alive at a median of 17.9 yrs. The survival probability at 10 years is 64.0% (95% CI: 46.2 to 75.8%), at 15-years is 50.5% (95% CI: 33.6 to 67.3%) and at 20 years is 45.4% (95% CI: 28.6 to 63.5%). In 1988, the NCI's SEER program began to collect

information regarding tumor size and nodal status for n=2,258 male breast cancer cases and specifically n=810 known node positive male breast cancer cases. Notably, the 10-year cumulative relative survival rate for men with node-positive breast cancer was 57.9%, consistent with MB82.

Discussion: We present the long-term results of a prospective study of node positive MBC. By comparing our results with the population-based SEER-program, it is difficult to draw definitive conclusions regarding the benefit of adjuvant CMF in the MB82 study. Trials using different chemotherapeutic combinations and/or hormonal therapies possibly should be considered for this mostly hormone receptor positive type of breast cancer.

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Long-term risk of cardiovascular disease in 10-year survivors of breast cancer.

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Purpose: To assess cardiac risk according to radiation field in breast cancer patients, accounting for cardiac risk factors.

Patients and methods: We studied incidence of cardiovascular disease (CVD) in a group of 10-year survivors (n=4368) who were treated in the Netherlands Cancer Institute and the Daniel den Hoed Cancer Center for early breast cancer between 1970 and 1987. Follow-up was for 98% complete until January 2000. Treatment-specific incidence of CVD was evaluated by calculating standardized incidence ratios (SIRs) based on comparison with general population rates and by using Cox proportional hazards regression.

Results: After a median follow-up of 18 years 942 cardiovascular events (acute myocardial infarction (MI), angina pectoris and congestive heart failure) were observed resulting in a SIR of 1.3 (95% CI: 1.2-1.4) and an absolute excess risk of 63/10,000 person-years. For the treatment period 1970-79, radiotherapy (RT) on the internal mammary chain (IMC) was associated with an increased risk of MI both for patients with left- and right-sided tumors in comparison with non-irradiated patients; hazard ratio (HR), 2.2; 95% CI: 1.3-3.7, and 2.9; 95% CI: 1.7-5.1, respectively, while for the treatment period 1980-86, these risks had declined to 0.8 (95% CI: 0.4-1.6) and 0.9 (95% CI: 0.5-1.7), respectively. Patients irradiated on the left chest wall experienced a significantly increased risk of MI as compared to those treated with surgery only in both treatment periods (HR, 2.8; 95% CI: 1.4-5.5, and 3.7; 95% CI: 1.2-11.5, respectively). RT on the right chest wall showed a non-significantly 1.5-fold increased risk of MI for the period 1970-79, while from 1980 on, no MIs occurred in this treatment group. RT on the breast only, applied from 1980 on, was not associated with an increased risk of MI, with HRs of 0.7 (95% CI: 0.3-1.6) for left-sided, and 0.9 (95% CI: 0.4-2.2) for right-sided tumors. Hypertension, smoking, diabetes mellitus and hypercholesterolemia acted as independent risk factors for MI, with HRs of 2.0(95% CI: 1.5-2.7), 2.1(95% CI: 1.5-2.7), 1.3(95% CI: 0.9-1.8) and 3.0(95% CI: 2.2-4.1), respectively. Analysis on the combined effects of smoking and RT revealed a more than additive effect on MI, with a HR of 3.0; 95% CI: 2.0-4.5 (HR for irradiated non-smokers, 1.3; HR for non-irradiated smokers, 1.4).

Conclusions: Radiotherapy after 1979 is not associated with increased MI risk, with the only exception for radiation to the left chest wall. The combination of smoking and RT appears to exert a greater than additive effect on MI risk.

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Stroke rates and risk factors in patients treated with radiation therapy for early stage breast cancer.

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INTRO: Radiation therapy (RT) increases risk of stroke in head & neck cancer patients. Meta-analyses show increased vascular mortality in patients receiving RT for breast cancer (BC). A recent study reveals increased stroke incidence in Swedish BC patients. We examine whether the common technique of supraclavicular RT (SCRT) is associated with stroke in BC patients.

METHODS: 867 consecutive patients with Stage I/II BC were treated with breast-conserving surgery & RT at U of Michigan Hospital from 1983-2000. 841 had records sufficient to determine incidence of cerebrovascular accident (CVA) or transient ischemic attack (TIA) in follow-up. Observed rates of CVAs (excluding & including TIA) were compared to expected age, gender, & race-specific rates calculated from the National Hospital Discharge Surveys to obtain standardized incidence ratios (SIRs). Relationships between potential risk factors and actuarial rate of first CVA were analyzed. Characteristics found on univariate analysis to be at least marginally associated with time to stroke ($p<0.1$) were included in a multivariate Cox model, along with potential 2-way interactions. Factors were removed stepwise until only characteristics significant at the 0.05 level remained.

RESULTS: 15 cases were excluded because they received RT to the neck for other causes. Median follow-up was 6.8 years (range 0.1-20.3). This yielded 6164 person-years of observation. Median age was 55.6 (range 21.5-88.4). At time of BC diagnosis, 317 patients had a history of hypertension, 58 diabetes, 302 smoking, 211 hypercholesterolemia, 14 previous stroke, 84 coronary artery disease (CAD), and 15 atrial fibrillation (AF). 373 received adjuvant tamoxifen, and 222 SCRT.

21 patients (2.5%) had at least one CVA in follow-up; 36 (4.4%) had at least one CVA/TIA. The SIR of CVA was 1.67 (95% CI 1.08-2.14). The SIR of CVA/TIA was 1.56 (1.13-2.11).

On univariate analysis, factors significantly associated with actuarial of first CVA included hypertension($p=0.004$), age($p<0.001$), CAD($p=0.002$), AF($p=0.01$), and SCRT($p=0.03$). Factors associated with CVA/TIA were hypertension($p<0.001$), CAD($p=0.002$), and age($p<0.001$), with SCRT($p=0.09$) and AF($p=0.06$) trending towards significance. Tamoxifen use alone was not significant($p=0.26$), but tamoxifen combined with baseline hypertension did lead to increased risk of CVA/TIA ($p<0.001$).

On multivariate analysis, only age($p<0.001$) and hypertension($p=0.005$) remained significant predictors of CVA/TIA. Age was the only significant predictor of CVA alone($p<0.001$).

CONCLUSION: This study suggests that BC survivors have an elevated risk of stroke compared to the general population. While recent studies have raised concerns that SCRT may lead to increased strokes in BC patients, this study reveals no significant association between SCRT and stroke, after controlling for other risk factors.

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Inverse-planned, dynamic, multi-field, intensity modulated radiation therapy (IMRT) for left sided breast cancer: comparison to best standard technique.

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Background: Delivering radiation therapy (RT) to the left breast plus internal mammary nodes (IMNs) without excessive dose to the heart is a challenge. The purpose of this study was to determine if dynamic, multi-field, inverse-planned IMRT would improve conformity and reduce dose to the heart and lungs without an excessive increase in healthy tissue dose, compared to best standard plans, when treating women with left-sided breast cancer with the IMNs included in the 95% planning target volume (PTV).